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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
CHIEKO OHSUMI, ET AL. : EXAMINER: COLLINS, C.
SERIAL NO: 09/810,186 :
FILED: MARCH 19, 2001 : GROUP ART UNIT: 1638
FOR: A METHOD FOR PROVIDING A :
PROPERTY OF STRESS-
RESISTANCE

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Now comes Chieko Ohsumi who states that:

1. I am a named inventor on the above-identified application.
2. I am a graduate of Tsukuba Univ. at 1981
and received my Doctor of Agriculture degree in the year 1993 at Tohoku Univ.
3. I have been employed by Ajinomoto Co. Inc. for 22 years as
a research scientist.
4. The following experiments were performed by me or under my direct supervision and control.
5. The following data demonstrate that raffinose synthase genes directly influences a plant's resistance to high salt conditions.

6. Seeds of *Arabidopsis thaliana* (T4 generation) of sSRS3 and sSRS4 transformants, which were transformed with a cDNA encoding Raffinose Synthase derived from soybean were tested for high salt resistance.

7. Seeds of *Arabidopsis thaliana* that were not transformed (Col-0) were used as a control.

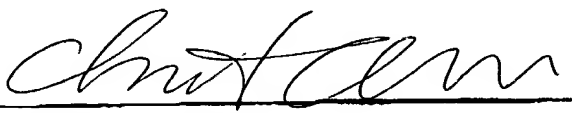
8. The seeds from the experimental and control plants were seeded on a rock wool and cultivated at 26°C for 14 hours in the light and for 10 hours in the dark.

9. Three weeks later, the resultant plants were transferred into a butt with a size of 35 x 25 x 5 cm. One and one-half liters of 200 mM NaCl was added thereto and the plants were cultivated under the same conditions noted above in paragraph 8. The NaCl solution was replaced every 4 days and the plants were observed every 3 or 4 days.

10. The rate of survival over the course of the experiment was plotted on a graph, which is attached as Exhibit 1. The results clearly show that the plants derived from seeds transformed with the raffinose synthase cDNA (-●- SRS4; -▲-SRS3) had significantly higher survival rates over the course of observation relative to the control untransformed plants (-■- col).

11. Therefore, the results demonstrate that raffinose synthase imparts to plants resistance to high salt conditions.

12. I declare further that all statements made herein of are of my own knowledge are true and that all statements made on information are believed to be true. Further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.


Chieko Ohsumi

2003.08.05

Date